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ELEPHANTIASIS OF THE SCROTUM.—THE INDIANS OF WASHINGTON TERRITORY.

[Communicated for the Boston Medical and Surgical Journal.]

U. S. STEAMER "SUWANEE," off the Coast of Washington Territory, November 3d, 1865.

MESSRS. EDITORS,—As it is seldom that elephantiasis originates in the temperate zones, according to the authorities that I have the opportunity of consulting, I have thought that you might consider the following case, which I saw yesterday, worthy of publication in your JOURNAL. The subject of it is a Makah Indian of about 50 years of age, living at Meah Bay, Washington Territory, on the Straits of Juan de Fuca, some seven miles from Cape Flattery. Through the kindness of Mr. J. G. Swan, who is teacher of the Indians at this agency, I was enabled to see the case and learn what little I could about it.

The affection consists of an enormous tumor of the scrotum, pyriform in shape, depending from, or somewhat above the pubes, extending down rather more than half way from the knees to the ankles, being about as broad as the patient is at the hips. The color is like that of the rest of the body, except where some thin, scaly scabs cover superficial ulcerations at its lower part. The skin, especially near its neck, is drawn very tense, is adherent to the rest of the tumor, and has few, though large and well-marked hair-follicles. To the feel it is elastic; in its lower half seeming to have elastic bands, between which is a semi-fluctuating substance, resembling a fat abdomen on percussion. The posterior surface has impressions of the legs. There is no appearance of a penis, nor of any aperture in front of the pedicle, which is quite tense and smooth. I have the word, however, of an intelligent white man, who has been at this place for several years, that some three years ago a penis could be seen there, though it was very short. He also states that he is confident that the tumor has increased gradually since then. I should judge that it must weigh close upon 50 pounds, and measure quite four feet in circumference; but owing to the shyness of the Indian, I could make no measurements, and, indeed, found conside-

rable difficulty in getting the hurried glimpse which I did, thanks to a bribe of half a bushel of potatoes. This man walks about, of course awkwardly and slowly, and fishes considerably in his canoe. He says that he has had the trouble some twenty-four years, and attributes it to having met a bear in the woods. As to the manner of its origin, or the symptoms connected with it, I could learn nothing; and if I had, it is probable that my information would have been about as valuable as that concerning its etiology. The patient complained chiefly of the weight and strain on his back and thighs. I advised him to support it over his shoulders by means of a suspensory bag and straps. Owing to the patient's age, as well as his somewhat impaired health, and the enormous size of the tumor, I judge that removal by the knife would not be advisable, though I do not know the usual results in such cases. No other case of the kind is known of in these regions. From the appearance of this tumor, which I have tried carefully to describe, I feel confident that it must be elephantiasis. I have not seen it affecting the scrotum before, but met many cases of it in the feet and legs in the West Indies and in Brazil, and one of the hand at the Massachusetts General Hospital. If any person who is better informed than myself considers my diagnosis incorrect, I should be happy to know it.

From Mr. Swan, who is a well-educated gentleman, as well as a careful observer of facts, and has lived many years among the Indians, and often by necessity has acted as their physician, I learned a few other items concerning them, which, as they may be of interest, I will add, together with a few obtained elsewhere.

He says that their prevailing diathesis is scrofulous, as shown in many chronic ulcerations and in ophthalmia. The latter may be greatly owing to the constant smoke which they keep in their lodges. Although he did not say so, my impression is that phthisis is rather common among them. This scrofulous condition is interesting in connection with the fact that their diet is almost exclusively of fish, and that they use large quantities of oil besides. As showing how fond they are of oils, he says that they all like castor oil, and call it "sweet medicine"! The nervous system is less active than with the whites, as shown in insensibility to pain, and the slight febrile symptoms that follow wounds, which heal readily. He knew of a woman who, going to the brook to drink, gave birth to a child unexpectedly, and returned to the village carrying it on her back. She was up and about as usual in three days. He says that he believes they usually return to their ordinary duties within a week after labor. Difficult labors are uncommon, yet he has known some women to die in consequence. Venereal is rare; rheumatic pains frequent. Having been through a smallpox epidemic among them, he says the disease made sad havoc at first, but that as soon as he attended to keeping them cool in the first stages and to giving them sufficient nourishment in the secondary fever, he met with no deaths. In an

epidemic further north, the sufferers had been put out of doors by the rest, with only one blanket and a little nourishment, and had generally died in a short time. In treating Indians, he had made a practice of giving only half of the usual doses, with satisfactory results.

At an Indian village further up the Straits, I was present at a "pow-wow" by a "medicine man" over a sick, apparently rheumatic woman. She was crouched on the floor of the hut, and in front of her the medicine man, who alternately howled, looking aloft, at times spirting a part of a mouthful of water upon the arm and the rest into the air, seemingly invoking some superhuman aid; and then would seem to have a violent struggle with hands and teeth and lips in extracting something from the arm, which, with loud cries, he would throw into the air. Around the fire was a listless circle of old hags, holding a couple of interested-looking infants, who had their sticks and made their noise, and two or three men, who kept up a monotonous song, and at the same time made a great din by pounding with sticks on boards or tin pans, one of the party having a rude drum. They kept up this performance some three or four minutes in our presence, not seeming to be disturbed by it at all. The patient's arm bore the marks of recent slashes with a knife over the seat of pain.

Mr. S. said that although the Indians on this coast had been reported to be cannibals, he did not believe it. Still he thought it possible that they might have eaten a piece of a prisoner, as they do at times of a living animal, in bravado to show their courage. But even the latter is rare. All the Indians on the Straits and on Puget's Sound belong to the Flatheads, though they go by different names, and, as I was told by a former army officer, originally spoke thirty-eight different languages. Thus it was that the Chinook jargon, the analogue of the lingua Franca, grew up out of the necessity of some common means of intercourse between the whites and Indians; it is used also between different Indian tribes. The papooses are kept fastened for about one year to a straight piece of board by a matting made of cedar bark, and rest upon cushions of the softest inner bark of the same tree. Several folds of the bark are fastened to the board above the head, and then lashed down upon it, flattening and widening it. I have seen some skulls in which this was done diagonally from one side to the other, producing an unsymmetrical deformity, which extends to the bones of the face. The girls have their legs put straight, the boys have theirs bent over a fold of bark.

These Indians have two wives if they can support them, and are very free to leave or change them on slight provocation. Some couples, however, live together constantly. I saw two children who were brother and sister by the mother, but cousins by the fathers, who were both alive at once. Their relationships are quite gene-

rally thus complicated, the different tribes intermarrying but little. They are said not to be as prolific as the whites.

Their religion, Mr. S. says, seems to consist chiefly of worshipping the sun at certain periods of the moon. This they do at sunrise by various dances and incantations. They fully believe that they go down into the earth after death, and that in that other life they have the same bodies as now, though without the bones—a shrewd theology, and one which one of them who was buried in a trance corroborated by telling the rest that he was sent back to this world because he brought his bones with him. Suspended animation, Mr. S. says, is rather common amongst them. He had an interesting allegorical painting, copied from the original, which was meant to represent the origin of thunder. The main figure was evidently intended for a whale, around which were several serpent-headed, hippocampus tailed minor monsters, and above them a large, grotesque, eagle-like bird, the thunder bird. The theory, he says, is, that the thunder bird and the hippocampus-shaped monsters, or lightning, fight with and kill the whale in a storm at sea; and that after that is over the bird seizes some of his former allies and bears them off to the mountains, where he tears them to pieces.

From the same source, I learned a fact which I had not heard mentioned before, which tends to show that the effect of the whites on the Indians, aside from all missionary work, has not been altogether harmful. It is, that whereas each village was stockaded and guarded on the first coming of the whites, and they were even warlike enough to drive the Spanish out of a fort, which they built at Meah Bay, now they have no stockades and very little warfare among themselves, and a few unprotected whites are now living safely among them. But I must close this long communication.

I am, very respectfully, your ob't serv't, DAVID MACK, JR.,
Assistant Surgeon U. S. N.

CONTAGIOUSNESS OF CHOLERA.

BY PETER D. WALSH, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

IN the summer of 1848 the cholera visited Ireland, and made its appearance in July of the same year in the city of Waterford, which contains about 80,000 inhabitants, is built on low marshy land, of granite and brick, and has a beautiful harbor, into which the whole drainage of the city is directed. The tenement houses were well regulated and not crowded. Sanitary regulations were well attended to by the city authorities, and still the cholera made a fearful havoc ere its progress could be stayed.

A friend of mine, who lived at a distance of six miles, made her forenoon call to the city on business, returned early in the afternoon,

and sickened that night. A physician was summoned early the next morning, who pronounced her disease cholera, and she died early that evening. Next in turn, a sister, aged 20, was attacked, and also a female domestic, who washed the linen of the deceased the day after the burial; she lived only twenty-four hours after exposure. A sister to the man of the house next became affected, and she lived only some forty hours. The lady of the house, aged 60, took ill, and died in two days and one night. A daughter, aged 23, next died, in the space of a few hours. A niece of the old lady, aged 30, was taken ill and died in twenty-four hours; a younger sister, aged 18, lived only a few hours. The young man of the house, aged 25, residing in the same street, attended to the burial of his family, and took ill and died in a few hours; also, his wife was attacked with the disease at her own house, but recovered, much exhausted. The old gentleman, proprietor of the house, still survived; friends and neighbors deserted him, and he stood alone in the world, with the exception of one man-servant, who did not leave him in the hour of his affliction. He was totally shut out from the world, and lived in this solitary way for twenty days. On the twentieth day he was taken ill with the cholera, and only lasted a few hours. He was 60 years old. Total number of deaths, ten, in twenty-one days; leaving not a soul in the family.

The house where this disease appeared was located on an eminence, at the angle of a small street, in a village of about 1500 inhabitants; it was one hundred feet in front, three stories in height, built of brick, and had no cellar. It was well ventilated, and the outbuildings, at a considerable distance from the dwelling, were all in perfect order, with everything to promote health and comfort. Some few of the neighbors became victims of the disease at the time, and farmers who were compelled to visit the city were taken home corpses. At length the city became almost totally deserted, people wending their way for safety to the country; dwelling-houses and market places were partially closed, and all were in despair. The disease made its exit from the city at the expiration of five weeks.

I am thoroughly conversant with the facts above stated, as I resided within a mile of the place at the time—the greater portion of the family affected being my own relations.

CLINICAL LECTURES ON AMBLYOPIA AND AMAUROSIS, BY PROF. A. von GRAEFE.

[Continued from page 422.]

CASE IV.—*Cerebral Hemiopia, occurring on similar Sides, stationary, resulting from an Apoplectic Attack.*

August K., weaver of fine cloth, 68 years old, comes to us on account

of deranged sight, consisting partly in double vision, partly in a diminution of the power of distinct perception. An examination shows the double vision to depend on a paralysis of the right abducens. The power of motion of the right eye outwards is reduced 2‴ in comparison with that of the left, the patient having, accordingly, homonymous double images, the distance between which increases towards the right. The remaining derangement of vision consists in a slight diminution of its acuteness in each eye to $\frac{1}{3}$, and in an entirely symmetrical anomaly of the field of vision. This is considerably contracted in each eye on the left side; eccentric vision is, moreover, indistinct over the whole left half, well up to the vertical line of equal division. Inasmuch as the ophthalmoscopic examination reveals no morbid change, except a partial atrophy of the optic nerve (to be referred to hereafter), this hemiopia of the left side must consequently be referred to a paralysis of the right tractus opticus, and the diagnosis of the whole disease may, therefore, be set forth as a paralysis of the right abducens and a paralysis of the right tractus opticus. A general examination reveals considerable and extensive arterio-sclerosis, hypertrophy of the left ventricle and insufficiency of the aortic valves.

From an analysis of the case we gather the following facts. Rather more than three years ago, the patient had an apoplectic attack, which resulted in hemiplegia as also hemiopia on the left side. He was under our treatment at that time, and the records show that the hemiopia, which at first had been nearly complete (failure of the field of vision up to the vertical line of equal division), gave way during the convalescence to the present point, the acuteness of vision rising from $\frac{1}{6}$ to $\frac{1}{3}$. Consequently, since that time, his power of sight has remained entirely the same. Fourteen days ago, the patient was compelled to go out in great haste with uncovered head in the midst of a snow storm, got into a profuse perspiration, the next morning had an acute, though not very severe headache, and, while attacked by no proper cerebral symptoms, noticed diplopia, which afterwards became more marked.

The question first arises as to whether any proper connection is to be established between the two paralytic affections, the loss of power in the right tractus opticus and the right abducens. We are of the opinion that this must be answered in the negative, for the following reasons:—

(1.) The hemiopia is evidently to be traced to the results of apoplexy in the right hemisphere. Its sudden approach, attended by cerebral symptoms and succeeded by this particular affection of vision and hemiplegia of the left side, admits of no other inference. From such an apoplectic source on the right side the paralysis of the right abducens could not evidently proceed, but must be referred to a second effusion on the left side, if connected with any central apoplectic source.

(2.) Supposing any connection to exist between the two affections, as, for example, that a basilar process supervened on the preëxisting cerebral disease of the right side, it would seem remarkable that the sharply-defined traces of the previous attack underwent absolutely no variation, but remained entirely as before. It may be added in this connection that the slight lameness of the left foot, a relic of that attack, has not experienced the slightest modification from the late event.

(3.) It is within the bounds of belief that a circumscribed apoplectic effusion *intra-cerebrum* should give rise to no other symptoms of paralysis than a loss of power in the abducens of the opposite side, as has been seen in cases of facial paralysis; still this isolated action, with no concurrent cerebral symptoms, is in any case improbable. The paralysis of the abducens itself, although not entire, is still very characteristic; consequently if the seat of the cause of the affection were central, we should expect it to cover some ground and cerebral symptoms to coëxist during the period of development.

(4.) An analysis of the case shows the affection to have occurred under circumstances favorable to, and to have developed in the manner of, an abducens paralysis proceeding from external causes.

For these reasons we believe ourselves compelled to regard this recent paralysis of the abducens as of rheumatic origin. Having distinguished between this and the remaining features of the case, let us return to an investigation of the amblyopia.

The ophthalmoscope reveals a senile, ring-shaped atrophy of the choroid around the optic nerve, and besides this a partial, shallow excavation of the papilla, which is not to be regarded as of previous existence (physiological); for in the first place the records, dated at the time of the convalescence of the patient from his apoplectic attack, mention a normal state of the papilla; secondly, the situation of the excavation itself within the papilla is very peculiar. On the right eye, indeed, its place is outwards from the point of exit of the central vessels, extending, however, to the outer edge of the papilla. In the left eye it dips along the inner edge of the papilla, and extends but a short distance beyond the point of exit of the central vessels, so that the surface of almost the entire outer half lies in the same plane with the contiguous retina. Its condition in this eye, therefore, differs materially from that of a physiological excavation. The state of the case admits of no doubt if we employ a largely-magnified inverted image and notice the effect of moving the convex glass.* The edges of the excavation having been once

* It is hardly necessary to state that this allusion refers to the well-known fact that in cases of excavation a peculiar ophthalmoscopic effect is produced by using the inverted image and slightly moving the convex object lens laterally or vertically, keeping always the same distance from the observed eye. The edges of the excavation are seen to move in a different plane from its base, seeming to slide over it. This effect is naturally more marked with an object-glass of comparatively long focal distance, $\frac{1}{3\frac{1}{2}}$ or even $\frac{1}{4}$. It is strange that no allusion is made to the binocular ophthalmoscope, the use of which throws this method completely in the shade.—Translator.

found, it may also be made out by the increase of whiteness the part has acquired through the greater prominence of the lamina cribrosa. Inasmuch as the right half of each papilla is affected by atrophic excavation, we have to do with a disappearance of nerve-fibres corresponding with the direction of the hemiopia. I lay the more stress on this result because, with the utmost watchfulness, I never before succeeded, in a case of cerebral hemiopia, in discovering such a change capable of being assigned to one half of the optic nerve. It may be because this occurs so gradually that the proper cases were not observed for a suitable length of time. As has been already stated, up to the close of the previous record, which was taken nearly five months after the apoplectic attack, such a discovery had not been made in the case of our own patient.

The greatest doubt still prevails as to the position in the trunk of the optic nerve of the fibres pertaining respectively to the fasciculus lateralis and cruciatus. I have established, I think, beyond all doubt, the old theory of semi-decussation by the accumulation of exact pathological proof; still it is not yet possible to form a correct conception of the anatomical situation. If, in a case of perfectly sharply-defined hemiopia occurring on corresponding sides, the vertical boundary line of the defective portion did not pass through the point of fixation, but rather through the middle of the "blind spot,"* we should have simply to suppose that the fibres situated in the outer half of the optic nerve (which radiate outwards on the retina) belong to the lateral line, those radiating inwards, on the other hand, to the fasciculus cruciatus. Such a disposition of things, however, would hardly conform with the functional needs, for then the collective impressions originating in the macula lutea would be transmitted to the corresponding cerebral hemisphere (through the fasciculus lateralis), and we should have to sacrifice the main point in the theory of semi-decussation, according to which the impressions made on identical retinal points are brought together in one tractus opticus, and thus to a centre in one cerebral hemisphere. The fact, that in cases of cerebral hemiopia the line of division passes through the point of fixation, requires a portion of the fibres belonging to the fasciculus cruciatus to radiate outwards from the papilla; in other words, to be already situated in its temporal half. It is not, therefore, in cases of atrophy of the fasciculus cruciatus, to be expected that the atrophy should be strictly confined to the inner half of the optic nerve; while, on the other hand, the paralysis of the fasciculus lateralis cannot involve the entire outer half (reckoning from the point of exit of the vessels). On the whole, however, these collections of fibres make up the bulk of the respective halves of the papilla, and in a case of permanent cerebral hemiopia such a state of the papilla as the present would seem very natural.

The prognosis of the case may be given as favorable, as far as regards the danger of blindness. Even were the apoplectic affection of one side, which has lasted so long, to advance, it would only, in accordance with our theory, cause the hemiopia to become more strongly marked; could not, however, lead to an invasion beyond the vertical line of equal division, or even to a permanent and considerable failure of acuteness of vision. Entire blindness can supervene on a one-sided apoplectic affection only (a) when an apoplectic affection developes itself in the other hemisphere; (b) when

* Corresponding, of course, in a projected field of vision to the position of the optic-nerve entrance.—Translator.

fresh effusions into the hemisphere originally affected cause general cerebral derangement, perhaps through anæmia; (c) when a basilar disease, directly affecting the trunks of the optic nerves, supervenes; (d) when a limitation of space in the cranium involves compression of the cavernous sinus, and, in consequence, venous strangulation of the papilla; (e) when the continued progress of the encephalo-meningitic disease causes a secondary neuritis. All these possibilities have but little to do with our case. Considering the diseased state of his vascular system, the patient might, to be sure, be seized with an apoplectic effusion in the left hemisphere; such an affection, however, would specially involve the left optic-nerve centre. A fresh and violent effusion on the right side, causing symptoms of general cerebral disease, would either prove fatal or else diminish sufficiently to allow the connection with the left optic-nerve centre to be reëstablished. The purely apoplectic nature of the affection and the absence of all symptoms of implication of the meninges give us at present no reason to suppose any probability of a basilar process. Increase of intra-cranial pressure takes place only in the incipient stage of apoplexy; hence venous strangulation of the papilla, an effect arising only from the prolonged action of such a cause, is not to be seen here, but is especially common with tumors. Derived neuritis (neuritis descendens) finally seems to occur in apoplectic effusions only when reactive prodromal symptoms of a positive character have gained considerably in intensity and extent in the adjacent portion of the cerebrum. In the case of a person who has extensive arterial ossification affecting the action of the heart, and who has already been the subject of an apoplectic effusion, it is of course impossible to foresee the form that later attacks of the same or other affections of the brain may take; this much, however, is certain, viz., that the disease must entirely change its habitation or its shape to produce blindness. A change for the worse (i. e., a more strongly-marked state of the hemiopia) might result from the occurrence of fresh effusions in the right hemisphere, or more extensive changes in the cerebral substance about the previous deposit; still, considering that the condition of things has for three years been entirely *the same*, such apprehensions are of minor consequence. On the other hand, recovery—in other words, restoration of the field of vision—is by no means to be expected. The long duration of this condition of things, and the partial atrophic excavation of the papilla, forbid such a hope.

Be it said in this connection that the resulting on similar sides (i. e., on the left or right side) of limitations of the field of vision or impairments of eccentric vision is very frequent in cases of apoplexy, and that the friends of the patient notice his inability to direct his movements on one side—as, for example, in the taking of things at the table. Central vision suffers commonly but little, when the general derangements caused during the period of development are once over, this being equally true of cases of complete cerebral hemiopia, extending to the vertical line of equal division. This latter affection is much more troublesome

for scholars when it affects the left tractus opticus rather than the right. For in the first case one loses the eccentric impression of what follows,* so essential to rapid reading, while in the latter it only becomes a little harder to catch a new line after having completed its predecessor.

As regards the treatment, there is nothing to be added. No agent could affect the apoplectic residuum, and we have, therefore, only to counsel an anti-apoplectic manner of life and avoidance of well-known predisposing causes.

In a few weeks the patient was again presented. The paralysis of the right abducens and the consequent diplopia had disappeared under a rather inactive treatment, which fact certainly goes to confirm the theory of a rheumatic paralysis; the derangement of vision was of course the same.

CASE V.—*Progressive Amaurosis, coming on under the form of a Central Scotoma, with a simultaneous Anomaly of the Periphery of the Field of Vision.*

August N., 23 years old, a robust-looking countryman, presents himself on account of a derangement of vision, which was first noticed in the left eye six months ago, shortly afterwards appeared in the right, and since that time has steadily progressed. We find in the left eye a large central scotoma, with an angle of aperture of about 20°, within which only bare perception of light exists. Close to the temporal edge of this scotoma the eccentric acuteness of vision is most developed, and diminishes then (the position of the "blind spot" being but a short distance removed from this point) in a nearly normal manner up to the periphery of the field, the sweep of which in the temporal direction is normal. Beyond the nasal edge of the scotoma the field of vision, examined by daylight, seems certainly normal; by subdued lamplight, however, a well-marked indistinctness of the eccentric vision is found to extend to the border of the field, which in this direction is appreciably contracted. Nearly the same state of things obtains upwards, while below the field of vision beyond the scotoma is tolerably normal. The state of the right eye is nearly the same, except only that the scotoma and the anomaly of the field of vision are somewhat less marked inwards and upwards. The patient employs in each eye eccentric fixation, bringing to bear on the object the portion of the retina situated between the fovea centralis and the temporal edge of the optic nerve, as possessing the best lateral vision. He can thus count fingers, with one eye in 6′, with the other in 8′, and with the right can, moreover, decipher the largest letters of the test. During the whole period of development of the disease, and even earlier, the patient has suffered from persistent headache, with a feeling of heaviness, a sense of

* In the German, "excentrisches Vorauslesen." In reading one word on a page, the main sense of the words immediately succeding is insensibly perceived, although attention be not voluntarily directed to them. The macula lutea takes cognizance of each successive word, and the lateral portions of the retina simultaneously observe what follows. An exact equivalent of the German phrase it is hard to find.—TRANSLATOR.

confusion and occasional giddiness, very marked drowsiness, and in former years from frequent epistaxis; the frontal region, too, on being tapped manifests sensitiveness. In the physical condition otherwise, and the habits of life, nothing of moment is discovered.

The complexion of the case as regards the prognosis is entirely different from that of Case III., where a central scotoma also existed. Our prognosis there was favorable, as far as the danger of blindness was concerned, for the reason that the periphery of the field of vision was entirely normal. But in this case there is, in addition to the scotoma, a considerable contraction of the field of vision upwards and inwards, also an indistinctness of eccentric vision in the same directions. It is this additional fact that causes us to suspect progressive blindness in these cases of central or eccentric interruptions of the field, although with them genuine atrophy seems to be less frequently involved than in the ordinary cases where contractions of the field of vision are alone found (Case II.). In such cases of blindness commencing with scotoma, I have several times had occasion to observe alterations of the cerebral substance following hyperæmia of long duration, and even numerous latent traces of encephalitis. In spite of the bad prognosis we associate with the existence of contraction of the field of vision, we will not refer as unreservedly to the necessary approach of blindness as in a case of genuine atrophy (Case II.), for we have in fact here decided symptoms of cerebral congestion, and it is not beyond the bounds of possibility that treatment addressed to them might bring the loss of sight to a stand-still. The patient states that a brother somewhat younger than himself was attacked a few years ago with cerebral symptoms and loss of vision similar to his own, got worse for six months, lost the ability to read, but since that time had remained about the same.

As regards the diagnosis, the persistent congestive headache, especially the local sensitiveness of the cranium, would tend to make us infer the existence of an inflammatory affection, perhaps a chronic meningitis with cerebral hyperæmia, or even an insidious encephalitis. The symptoms, however, do not justify us in pronouncing a decided opinion.—The present treatment will be that of chronic meningitis, a "milk-cure," leeches behind the ears, by and bye a seton, and sublimate internally.

This treatment was followed up for several months (Iodide of potash, the decoction of Zittmann and the "cold-water cure" being subsequently employed). The cerebral symptoms disappeared almost entirely, the loss of vision, however, seemed to remain stationary for a time, and then slowly progressed. At the time of the patient's dismissal a small streak of the field of vision still existed, inwards from the central scotoma, leading us to infer that the defective portion at the periphery will speedily be merged in the central

portion where vision has failed. In a dim light the patient's movements were already very uncertain. An entirely unfavorable prognosis must therefore be given.

Meanwhile, an examination of the brother of the patient having been made, it was ascertained that while the cerebral symptoms at the commencement of the disease bore the same stamp as in our own case, the physical signs had assumed a different form. The confines of the field of vision had remained entirely normal; the acuteness of vision is now reduced to about $\frac{1}{14}$, owing to an ill-defined central scotoma with an angle of aperture of from 6° to 8°; there is also a moderate amount of atrophic degeneration of the papilla. This state of things has lasted in the present case about four years, and has not yielded to the various remedial measures that have been meanwhile employed. It comes under the head of Case III. Probably both brothers were affected by the same original cause, acting however to a different degree, and exerting consequently a different effect. It has previously been observed that even the benevolent forms of amblyopia arising from causes connected with the circulation (for example amblyopia potatorum), pass into a form of amaurosis if the cause become more active; and it is especially probable that permanent central scotoma, in the course of which is developed a partial atrophy of the optic nerve, visible on the papilla, needs only the more vigorous action of the same cause to produce progressive atrophy. This undeniable connection of cause should not of course prevent us from making a distinction as regards symptoms in forms of disease the prognosis of which may be widely different.—I have observed hereditary transmission, the possibility of which we cannot deny, less frequently in genuine atrophy than in cases of congestive amblyopia, where the field of vision is either normal or where central interruptions exist; a fact which need not surprise us when we consider the frequent inheritance of a congestive tendency.

[To be continued.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE PROVIDENCE MEDICAL ASSOCIATION. BY W. H. TRAVER, M.D., SECRETARY.

The following cases were reported by Dr. Collins.

Puerperal Convulsions—Recovery without Treatment.—The patient was a Swiss woman, aged 20, primipara, full habit, health good. Labor commenced early on the morning of Nov. 8th. It was slow, and but little progress was made until towards evening, when the head began to descend through the inferior strait. By eight o'clock, it had passed into the pelvic cavity, at which time she was taken with convulsions. Delivery was very soon effected by the forceps. She

had no convulsions after the birth of the child, but did not recover consciousness until 4, A.M., of following morning. She had quite profuse hæmorrhage after the delivery of the afterbirth, for which she took a few doses of the wine of ergot. No other medicines or remedy were used. She made an excellent recovery.

Gun-shot Wound of the Fore-arm.—An Irishman, about 35 years of age, in a drunken brawl, on the night of the 16th of November, was shot, at short range, by a Minié ball fired from a United States musket, in the hands of a returned colored soldier. The ball took effect in the lower part of the middle third of the right fore-arm, upon the posterior surface. The radius was uninjured. The ball passed diagonally through the arm, severing the ulna and probably one or both of the inter-osseous arteries. About two inches and a half of the ulna was carried away, making a very large lacerated wound at the place of exit. He was not seen until nearly an hour after the injury, and had lost much blood. Fainting supervening, the bleeding ceased, so as to furnish no guide to the ends of the wounded arteries, and the surrounding circumstances being unfavorable for an operation, it was decided to dress the wound and leave the divided arteries untied. This was accordingly done by iron wire ligatures and adhesive straps, and the arm bandaged and placed upon a splint. The case has done perfectly well since, and up to the present time (Dec. 12th) there has been no secondary hæmorrhage.

Annular Stricture of the Intestine from Carcinoma.—The specimen was exhibited. The patient, S. P., a married man, aged 38, engraver, of good habits, had enjoyed good health up to the 18th of July last. About that time, after eating quite freely, he had an attack of vomiting, after which he continued to have similar attacks almost weekly until October, although he continued in his business and took no advice. He suffered little or no pain, and the vomiting appeared to occur without any apparent effort. In October the vomiting became more frequent, sometimes several times a day, and he sought advice. He obtained no relief, and came under the care of Dr. Collins on the 2d of November, who attended him until his death, which took place on the 23d. During this time he suffered no pain. The pulse was generally about 80; no heat of skin; tongue rather dry; urine small in quantity, but normal; bowels torpid; very restless, and sleep disturbed; mind torpid, but clear when aroused.

The vomiting was more or less frequent, sometimes but once in twenty-four hours, but generally oftener, depending, however, upon the amount swallowed. The matter vomited was of a dark-brown color and very offensive. It was evidently colored by bile. It contained no blood or *sarcinæ* until the day before death, when blood was thrown off. He emaciated rapidly, and for some days before death the skin began to present purpuric spots, which before the close were almost universal. He was nourished for a time with injections of albumen and beef-tea. This he finally refused to receive, and soon sank from exhaustion resulting from emaciation.

Post-mortem.—The organs were generally in a healthy state. The mucous membrane of the stomach was congested and very dark; the pylorus healthy. On tracing the intestines downwards, about two feet from the stomach, was found an annular stricture, reducing its calibre to the size of a crow-quill. The obstructions appeared to con-

sist of a very narrow annular tumor surrounding the intestine, or rather developed in the mucous or submucous cellular layer. It had a hard feel, but the inner surface presented something of a fungous look. It was evidently of a carcinomatous nature. The portion of intestine above the stricture was dilated, devoid of plicæ, and presented a dark-red or blackish-red appearance. The part below was contracted, contained but little matter, and was nearly normal in color.

Injury to the Tibia.—Dr. CASWELL briefly reported the following case of injury to the tibia. The patient, a boy about 10 years of age, received the full force of a heavy blow from an axe upon the upper portion of the lower third of the right leg. The axe cut through the muscles, severing the anterior tibial artery, and cutting through the tibia longitudinally for about four inches upon the external, and two inches upon the internal surface. The bone was sprung forward so as to render its replacement impossible. The artery was tied, the end of the severed portion of bone taken off, and the edges of the wound brought together. The patient was convalescing rapidly.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 28, 1865.

ENDOSCOPY.—Certainly one of the most ingenious applications of the art of direct exploration and physical examination of the condition of the blind passages and internal organs of the human body, which modern professional zeal and enterprise has discovered, is that known by the name of Endoscopy. It boldly attempts and succeeds in accomplishing the direct, ocular examination of narrow canals and obscure cavities which until now have never admitted during life the light of day, and which would seem to most persons, *a priori*, to be entirely beyond the study of the most inquisitive research applied in this way. But modern medical exploration has not yet reached its limit, it would seem, and by the method of which we are speaking it now reveals the secret lacunæ of the urethra, and even the interior of the bladder itself, to the most thorough and exact ocular scrutiny. As yet the practice of this method may be said to be in its infancy merely; it is in the hands of but few practitioners, but the results already attained are such as to warrant the hope that it will furnish the means of rational and successful treatment in some most serious complaints, which have hitherto been to a very great extent treated blindly and rudely.

Endoscopy is an art rather than a science, inasmuch as it consists merely in a method of exposing, by means of ingenious mechanism, to visual inspection and study hidden regions hitherto unexplored in this way. To the late lamented Dr. John D. Fisher, of this city, belongs the credit of having first devised an apparatus for this purpose, identical in principle and similar in structure to that which is employed with so much success in France at the present time by Desormeaux, and by Dr. Cruise in Dublin. So long ago as 1824, Dr. Fisher contrived his instrument, but it does not seem in his hands to have attracted the attention it deserved or to have accomplished the

results of which it is plainly capable. At the present time endoscopy is in active employment by both of the gentlemen who have taken it up since the decease of Dr. Fisher. Dr. Cruise's instrument is that which has produced the results with which we are best acquainted, and its structure is quite simple and easily understood.

The apparatus consists of a lantern for the purpose of illumination, and a system of tubes and instruments by which its light is made available. Dr. Cruise employs the flat flame of a petroleum lamp, placed with the edge towards the exploring tube. This lamp is enclosed in a wooden case, to avoid the inconvenience of the heat and the diffused light, with an opening opposite the flame on one side. In this opening a strong condensing lens is set, through which the light passes into the eye tube. This is a short tube, something like the tube of a microscope, but shorter, which is screwed to the side of the lantern opposite the opening. It is so jointed to the lantern, to which it is attached by its side, that it can be freely rotated, but in use it is generally kept in a horizontal position. The condensed light from the lantern, having entered the eye tube through the lateral opening, falls on a perforated mirror set in this tube at an angle of 45°, by which the ray is reflected and thrown away from the eye of the observer along the axis of the tube. A small central opening in the mirror enables the eye of the observer placed behind to follow the light to the deepest recesses to which it may be directed. For examination of the urethra a tube, the narrow portion of which is of the size of a large catheter, and six inches long, is fitted to the end of the eye-tube. Just before junction with the eye-tube it gradually expands, so as to give it a diameter large enough for the practical application of the instrument. When this tube is adjusted in the manner described, and introduced into the urethra, the effect is most marvellous. The whole canal can be examined most carefully, and the slightest local affection of whatever kind can be made out with perfect distinctness. In his interesting account of this instrument and its uses, Dr. Cruise gives colored plates showing the appearances of this canal, both diseased and healthy, even as far back as the prostatic portion. Having obtained a fair view of any morbid condition of the urethra, Dr. Cruise proceeds to apply the requisite treatment directly to the part affected. This is done by means of an opening on one side of the dilated portion of the urethral tube, by which he is able to introduce instruments for the purpose as far as may be necessary. He thus avoids the necessity of applying remedies in the usual way, by which the whole urethra is subjected to the stimulus of an injection or exposed to the danger of laceration in a case of narrow and obstinate stricture. In chronic blenorrhagia, for instance, he applies his caustic directly to the granular surface of the membranous portion of the urethra with as much accuracy as the oculist does to the granulations of an old conjunctivitis. He is able also to watch the effect of his treatment from day to day, and is thus enabled to graduate the strength of his applications to the actual condition of the affected part, instead of trusting to the uncertain guide of the sensations or statements of the patient. Surely this is a great advance in practical surgery!

Another class of affections which the endoscope has furnished the means for successfully treating is stricture of the urethra. The most

obstinate resistance on the part of these sometimes impervious obstructions of this canal have yielded to the insinuating power of a fine bougie passed under the eye of the observer. Dr. Cruise mentions several instances of this. In one, M. Civiale had tried for twenty-eight days to pass a sound through the stricture without success. At the second attempt, Mr. Desormeaux, by the aid of the endoscope, passed a fine bougie through the constriction, and from that time the case went on favorably. In another case, of a patient 73 years old, repeated attempts by Dr. Cruise to pass a bougie failed, until he employed the endoscope, by which his efforts were finally crowned with success, and gradual dilatation was employed until the canal was enlarged to its full dimensions. By means of this instrument, also, internal urethrotomy is disarmed of most of its dangers, the knife being applied directly to the part requiring division under the direct observation of the operator. This operation has been very successful in these cases in the hands of M. Desormeaux, and it will undoubtedly often obviate the necessity of perineal section or of puncture of the bladder.

But the use of the endoscope is not limited to the canal which evacuates the bladder—it is made to explore that organ itself. By means of a catheter with a short curve, furnished with an opening on its convex surface, supplied with a glass window, the light from the lantern is thrown directly into the bladder. In this way Dr. Cruise has succeeded in perfectly examining the prostatic portion, the fundus and greater part of the posterior surface of this organ. In one instance of inflamed bladder, he made the condition of the lining membrane as visible to another observer as, to use his own words, "the conjunctiva of an inflamed eye." The *experimentum crucis* to which Dr. Cruise was subjected by his colleague, Dr. McDonnell, would seem to settle the question of the capabilities of the instrument for the purposes of accurate examination. This gentleman placed in the bladder of a dead body several articles, of the nature of which Dr. Cruise was not previously informed. By means of the endoscope he was enabled to make them out to be a Minié bullet, a brass screw with a milled head, and a mass of plaster of Paris! Surely accuracy of diagnosis can go no farther.

At the present day, when specialties are occupying the attention of so many industrious members of the medical profession, the endoscope promises to be fruitful of valuable results. Its use must require a certain amount of patience and dexterity, which can hardly be looked for from every general practitioner. With the laryngoscope it cannot fail to reward the labors of those who, by a natural gift or by a special cultivation of the capabilities of the instrument, will be enabled to substitute positive knowledge for conjecture, and direct application of remedies for blind treatment, in the management of a class of cases, many of which are among the most serious which the surgeon is called upon to treat.

PROGRESS OF THE CHOLERA.—The Government of France has announced, through the *Moniteur*, that the proportion of deaths daily occurring in Paris from and during the present epidemic of cholera, has not exceeded one in twenty thousand persons, and that the ordinary daily average of mortality has only been increased one half by the number of deaths attributed to cholera.

The epidemic is now virtually at an end in Paris, and is about to pass into the events of the past. The Emperor Napoleon has behaved admirably in this crisis, and one of his latest acts in connection with the outbreak will be received by the Medical Profession, here as well as in France, with signal favor.

"The Marquis de Lavalette, Minister of the Interior, accompanied by M. Haussmann, Prefect of the Department of the Seine, and M. Boitelle, Prefect of Police, visited the Hotel-Dieu and the Hospital Beaujon. The Minister of the Interior announced that the Emperor, sensibly touched by the indefatigable zeal of the House Surgeons and students in the Cholera Hospitals, and desiring to recompense their entire body in the persons of two who had particularly distinguished themselves, had named M. Legros, Surgeon at the Hotel-Dieu, and M. Lelion, of the Hospital Beaujon, Chevaliers of the Legion of Honor."

The theory of the animalcular origin of the disease has been revived by Dr. Cunniere.

On the whole, this week we may report favorably as to the general condition of Europe. In England the Registrar-General's returns are free of all report of cholera, and in Spain the epidemic has ceased. In Malta there was a brief recurrence of the disorder on the 4th, at Fort of Elmo, but the attack was short in its duration, and since the 10th we have not heard of a fatal case. In Naples the disease is still violent, but we get no authentic records, showing the precise number of cases and deaths.—*Med. Times and Gazette* of November 26th.

Amputation, Disarticulation and Resection Statistics of the Confederate States Army.—Amputations of the thigh, whole number, 507; primary, 345; recovered, 213; died, 132; 38 per cent. Secondary, 162; recovered, 43; died, 119; 73 per cent.

Amputations of the leg, whole number, 464; primary, 314; recovered, 219; died, 95; 30 per cent. Secondary, 150; recovered, 76; died, 74; 49 per cent.

Amputations of the arm, whole number, 434; primary, 294; recovered, 252; died, 42; 14 per cent. Secondary, 140; recovered, 87; died, 53; 37 per cent.

Amputations of the fore-arm, whole number, 114; primary, 69; recovered, 61; died, 8; 12 per cent. Secondary, 45; recovered, 35; died, 10; 22 per cent.

Disarticulations, whole number, 135; primary, shoulder-joint, 79; recovered, 54; died, 25; 31 per cent. Primary, elbow-joint, 4; recovered, 3; died, 1. Primary, wrist-joint, 7; recovered, 5; died, 2. Primary, hip-joint, 3; recovered, 1; died, 2. Primary, knee-joint, 5; recovered, 2; died, 3. Secondary, shoulder-joint, 28; recovered, 8; died, 20; 71 per cent. Secondary, elbow-joint, 3; recovered, 3; died, 1. Secondary, knee-joint, 6; died, 6.

Resections, whole number, 130; primary, shoulder-joint, 41; recovered, 28; died, 13; 27 per cent. Primary, elbow-joint, 25; recovered, 22; died, 3. Primary, wrist-joint, 2; recovered, 2. Primary, knee-joint, 2; died, 2. Secondary, shoulder-joint, 26; recovered, 19; died, 7; 21 per cent. Secondary, elbow-joint, 29; recovered, 23;

died, 6. Secondary, wrist-joint, 1; recovered, 1. Secondary, hip-joint, 2; recovered, 1; died, 1.

Amputations of the foot; primary—Chopart's, 16; recovered, 13; died, 3; Symes's, 2; recovered, 2; Pirogoff's, 4; recovered, 2; died, 2. Secondary—Chopart's, 8; recovered, 7; died, 1; Symes's, 4; recovered, 4 (1 unsuccessful, requiring subsequent amputation above the ankle-joint).

A vast number of additional operations are received, but without positive results, and therefore they have not been included in the above list.

We may well be satisfied with the results of these statistics, which, carefully excluding all doubtful cases, are compiled from those operations only that have reached a positive conclusion. A general summary of the above table shows that the mortality after 1,814 operations, including amputations, resections and disarticulations, amounted to 632, giving a death ratio of 34 per cent.

The only statistics on this subject from the Federal army we find in the *United States Army and Navy Journal* for November, 1863, which gives the amputation statistics for September, October, November and December, 1862, as follows:—Whole number, 1,342; deducting 516 under treatment January 1, 1863, 826. Of this number, 336 died; a mortality of 40 per cent.

The journal to which we owe the above observation gives the following table:—Whole number, 1,342; returned to duty, 100; furloughed, 25; deserted, 11; discharged, 350; died, 336; secondary operation, 34; under treatment January 1, 1863, 516.—*Richmond Medical Journal*, and *Confederate States Medical and Surgical Journal.*

Ozone. Dr. B. W. Richardson.—The following are the reliable facts known up to this time respecting ozone: 1. Ozone in a natural state is always present in the air in minute proportions; viz., one part in ten thousand. 2. It is destroyed in large towns, and with special rapidity in crowded, close, and filthy localities. 3. Ozone gives to oxygen properties which enable it to support life. In this respect it acts like heat; its effects are destroyed by great heat. 4. Ozone diffused through the air in minute quantities produces, on inhalation, distinct symptoms of acute catarrh. 5. When animals are subjected to ozone in large quantities, the symptoms produced, at a temperature of 75°, are those of inflammation of the throat and mucous membranes generally, and at last congestive bronchitis, which, in carnivorous animals, is often rapidly fatal. 6. When animals are subjected for a long period to ozone in small proportions, the agent acts differently, according to the animal. The carnivora die, after some hours, from disorganization of the blood separation; but the herbivora will live for weeks, and will suffer from no acute disease. 7. The question whether the presence of ozone in the air can produce actual disease, must be answered cautiously. Science has yet no actual *demonstrative* evidence on the point. But the facts approach to demonstration that catarrh is induced by this agent. All else is yet speculative. 8. During periods of intense heat of weather the ozone loses its active power. 9. On dead organic matter undergoing putrefaction, ozone

acts rapidly; it entirely deodorizes by breaking up the ammoniacal products of decomposition. At the same time it hastens the organic destruction. 10. There is an opposite condition of air in which the oxygen is rendered negative in its action, as compared with the air when it is charged with ozone. Air can thus be rendered negative by merely subjecting it, over and over again, to animals for respiration. The purification of such air from carbonic and other tangible impurities, does not render it capable of supporting healthy life; but ozone restores the power. In a negative condition of air the purification of the organic matter is greatly modified, and the offensive products are increased. Wounds become unhealthy and heal slowly in such negative air. 11. There is no demonstrative evidence, as yet, that any diseases are actually caused by this negative condition of air; but the inference is fair that diseases which show a putrefactive tendency are influenced injuriously by a negative condition of the oxygen of the air. It is also probable that during this state decomposing organic poisonous matters become more injurious. 12. As ozone is used up in crowded localities, and as it is essential that ozone should be constantly supplied in order to sustain the removal of decomposing substances and their products, no mere attention to ventilation and other mechanical measures of a sanitary kind can be fully effective, unless the air introduced be made active by ozone. Fever hospitals and other large buildings in town should be artificially fed with ozonized air.—*New York Med. Journal* and *British Med. Journal.*

Suicides in France.—A work just published in France by Dr. Brismont, states that over three hundred thousand Frenchmen have committed suicide since the commencement of the present century. Of these he has carefully analyzed four thousand five hundred and ninety-five cases. He finds the majority of suicides to fall between the fortieth and fiftieth year; in Paris, however, the majority occur between the twentieth and thirtieth. Two children under nine, and one under five, killed themselves. More people commit suicide between seventy and eighty than between thirty and forty. Fewer women than men commit the act.

The following table exhibits the various modes of suicide in France between the years 1827–60:—

		Men.	*Women.*
1. Strangled by hanging	14,806	12,152	2,699
2. Drowned	11,845	7,668	4,177
3. By firearms	4,390	4,337	53
4. Asphyxia from charcoal	3,224	1,917	1,307
5. By sharp-pointed instruments	1,522	1,272	250
6. Voluntary leaps from high places	1,380	862	518
7. Poison	756	474	282
8. Other causes	282	228	54
	38,205	28,910	9,340

Treatment of Cattle Plague by the Sulphites.—The following letter appears in the *Daily Review*:—"I have had a number of cases on a farm which I occupy. On seeing Dr. Smart's recommendation and prescription for dosing all the unaffected animals with sulphite of soda as a disinfectant, I immediately set to work and had each given

its quantum—viz., one and a half ounce in a half bottle of water almost daily. I beg now to state that all the animals dosed previous to being seized have recovered under the treatment of the inspector, while those who were not dosed all died.—G. D."—*London Medical Times and Gazette.*

Hospital for the Hopelessly Insane.—The General Assembly of Connecticut at its last session appointed a special committee consisting of Mr. Smith on the part of the Senate, and Messrs. Rice of Farmington, Kingsbury of Waterbury, Munson of Seymour, and Chaney of New London, on the part of the House, to ascertain the number and condition of the incurable insane in that State, the object being to erect a hospital specially designed for the treatment of such persons. The Legislative committee on humane institutions reported unanimously in favor of such an institution. The special committee named above lately visited the Retreat in Hartford, and found about one hundred persons who are considered incurable of their malady; there are at least one hundred more in almshouses and private keeping throughout the State.

Iowa Medical Society.—At the last annual meeting of the State Medical Society of Iowa, held at Ottumwa, the following officers were elected for the ensuing year:—*President*, Dr. J. C. Hughes, of Keokuk; *Vice President*, Dr. J. Williamson, of Ottumwa; *Secretary*, Dr. J. W. H. Baker, of Davenport; *Treasurer*, Dr. Wm. Watson, of Dubuque; *Corresponding Secretary*, Dr. W. F. Peck, of Davenport; *Censors*, Drs. M. B. Cochrane, S. B. Thrall, A. G. Field, J. M. Shaffer, James Gamble.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, December 23d, 1865.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week	46	35	81
Ave. mortality of corresponding weeks for ten years, 1853—1863	40.8	40.5	81.3
Average corrected to increased population	00	00	88.6
Death of persons above 90		1	1

Erratum.—In our last number a slight inadvertence in translating gave a very erroneous character to the fifth paragraph on page 426. It should read, "The density of the soil over which the dejections are spread diminishes," &c.

Books Received.—Obscure Diseases of the Brain and the Mind. By Forbes Winslow, M.D., D.C.L. Oxon, &c. &c. Second American from third and revised English Edition. Philadelphia: Henry C. Lea.

Died,—In Woolwich, Me., Dec. 19th, of heart disease, Dr. Cleveland Buck, an old and highly esteemed physician of that town.

Deaths in Boston for the week ending Saturday noon, December 23d, 81. Males, 46—Females 35. Accident, 3—disease of the bowels, 2—congestion of the brain, 3—disease of the brain, 3—bronchitis, 2—burns, 1—consumption, 17—convulsions, 2—croup, 1—diarrhœa, 1—diphtheria, 5—dropsy of the brain, 1—epilepsy, 1—exhaustion, 1—typhoid fever, 2—typhus fever, 1—disease of the heart, 4—infantile disease, 1—insanity, 1—disease of the kidneys, 3—leucocythæmia, 1—disease of the liver, 1—inflammation of the lungs, 9—old age, 4—puerperal disease, 1—scalded, 1—scrofula, 3—smallpox, 1—teething, 1—unknown, 4.

Under 5 years of age, 23—between 5 and 20 years, 13—between 20 and 40 years, 29—between 40 and 60 years, 8—above 60 years, 8. Born in the United States, 61—Ireland, 15—other places, 5.